

Serial No. 09/421,363
Docket No. YOR919990349US1

2

AMENDMENTS TO THE CLAIMS:

Please cancel claim 11 without prejudice or disclaimer.

1. (Currently amended) A method for personalizing an interactive voice response (IVR) system to reduce a number of key sequences to reach a desired source of information, comprising:
 - storing a caller profile;
 - accessing said IVR system via a telephone; and
 - retrieving the caller profile to construct a personalized IVR dialogue menu by performing a tree-based collapsing, and play out the personalized IVR dialogue menu via said telephone, said personalized IVR dialogue menu comprising:
 - a plurality of shortcut paths; and
 - an option for changing said plurality of shortcut paths in said personalized IVR dialogue menu,wherein said personalized IVR dialogue menu is at least one of based on a caller access pattern and configurable by said caller.
2. (Original) The method of claim 1, further comprising:
 - tracking an access pattern of said caller.
3. (Previously presented) The method of claim 1, further comprising:
 - specifying, by said caller, a content of said personalized IVR dialogue menu.
4. (Previously presented) The method of claim 1, further comprising:
 - providing a tracking of IVR accessing patterns of said caller such that one of said plurality of shortcut paths is provided to a desired location based on said caller's IVR accessing patterns.
5. (Previously presented) The method of claim 4, wherein said one of said plurality of

Serial No. 09/421,363

3

Docket No. YOR919990349US1

shortcut paths is based on a most-recently accessed IVR pattern.

6. (Previously presented) The method of claim 4, wherein said one of said plurality of shortcut paths is based on a most-frequently accessed IVR pattern.

7. (Original) The method of claim 3, wherein a specification of said personalized IVR menu is performed over a telephone.

8. (Original) The method of claim 3, wherein a specification of said personalized IVR menu is performed over a network.

9. (Original) The method according to claim 8, wherein said network comprises at least one of a World-Wide-Web (WWW), an intranet, and a personal area network (PAN).

10. (Original) The method of claim 1, further comprising:
displaying to said caller said IVR menu to reduce a number of key sequences during interactions.

11. (Canceled)

12. (Original) The method of claim 1, further comprising:
inserting a personalized sub-menu into said personalized IVR dialogue menu.

13. (Original) The method according to claim 1, further comprising:
inserting an advertisement into said caller's personalized IVR dialogue menu, based on the caller's IVR past accessing patterns, during said caller's navigation of said personalized IVR dialogue menu.

14. (Original) The method according to claim 13, wherein said inserting of said

Serial No. 09/421,363

4

Docket No. YOR919990349US1

advertisement is based on contents of said menu that the caller has accessed.

15. (Previously presented) The method according to claim 1, wherein said retrieving is performed upon said system receiving a telephone call from said caller.

16. (Currently amended) A system for personalizing an interactive voice response (IVR) system to reduce a number of key sequences to reach a desired source of information, comprising:

- a storage device for storing a caller profile;

- a telephone for accessing said IVR system; and

- a retrieval unit for retrieving the caller profile to construct a personalized IVR dialogue menu by performing a tree-based collapsing, and play-out the personalized IVR dialogue menu via said telephone, said personalized IVR dialogue menu comprising:

- a plurality of shortcut paths; and

- an option for changing said plurality of shortcut paths in said personalized IVR dialogue menu,

- wherein said personalized IVR dialogue menu is at least one of based on a caller access pattern and configurable by said caller.

17. (Previously presented) The system according to claim 16, wherein said retrieval unit retrieves said caller profile upon said system receiving a telephone call from said caller.

18. (Original) The system according to claim 16, wherein said retrieval unit is selectively interfaced with a network and a public switch telephone network (PSTN).

19. (Previously presented) The system according to claim 18, wherein said retrieval unit includes:

- a telephone interface module for selectively interfacing with said PSTN and for selectively receiving a predetermined tone and a voice input from said caller via the PSTN,

Serial No. 09/421,363

5

Docket No. YOR919990349US1

wherein said telephone interface module selectively transmits at least one of synthesized and stored voice messages to said caller via the PSTN,

wherein said personalized IVR dialogue menu is configurable by said caller through the PSTN via said telephone interface module.

20. (Currently amended) The system according to claim 16, wherein said retrieval unit further includes:

a dialogue handler, coupled to receive an input from said caller, for modeling state transitions of said system, to provide an output,

wherein the output of said dialogue handler module determines a message to be returned to said caller, and an input of said dialogue handler module is derived from a caller input via at least one of a predetermined tone and a voice message from ~~form~~ said caller.

21. (Original) The system according to claim 16, wherein said retrieval unit further includes:

a dialogue logging and analysis module for recording a dialogue between the IVR system and said caller, and logging input sequences from said caller of the IVR system while said caller conducts said dialogue with said IVR system,

wherein said input sequences logged are for analyzing said caller's access patterns.

22. (Original) The system according to claim 21, wherein the analyzed access patterns are for providing a shortcut for personalized access to at least one of a most-frequently accessed information of said caller and a most-recently accessed dialogue path of said caller.

23. (Original) The system according to claim 22, wherein, based on said input sequences logged, said dialogue logging and analysis module provides at least one of personalized direct access automatically when said caller next calls the IVR system and a suggestion of such access pattern to said caller for creating said personalized menu.

24. (Previously presented) The system according to claim 16, wherein said retrieval unit

Serial No. 09/421,363
Docket No. YOR919990349US1

6

further includes:

a dialogue automatic playout module for allowing personalized access of information by said caller,

wherein if said caller decides to use a personalized shortcut path unique to said caller, control sequences representing said shortcut path are input to said dialogue automatic playout module.

25. (Previously presented) The system according to claim 16, wherein said retrieval unit further includes:

a personalized menu processor module for constructing said shortcut for the personalized menus specified by said caller,

wherein specification is selectively performed over one of a telephone interaction and a world-wide network, and

wherein a personalized menu specified by said caller is represented by one of a list of direct dialogue paths to desired information and a hierarchical dialogue menu.

26. (Currently amended) A system for personalizing an interactive voice response (IVR) system to reduce a number of key sequences to reach a desired source of information, comprising:

a storage for storing a caller profile; and

a retrieval unit for retrieving the caller's profile to construct a personalized IVR dialogue menu by performing a tree-based collapsing and play-out the personalized menu, said retrieval unit being selectively interfaced with a network and a public switch telephone network (PSTN), and said personalized IVR dialogue menu comprising:

a plurality of shortcut paths; and

an option for changing said plurality of shortcut paths in said personalized IVR dialogue menu,

wherein said retrieval unit includes:

a telephone interface module for selectively interfacing with said PSTN and for

Serial No. 09/421,363

7

Docket No. YOR919990349US1

selectively receiving a predetermined tone and a voice input from said caller via the PSTN, said telephone interface module selectively transmitting at least one of synthesized and stored voice messages to said caller via the PSTN,

wherein said personalized IVR dialogue menu is configurable by said caller through the PSTN via said telephone interface module,

wherein said retrieval unit further includes:

a network interface module for communicating with external systems via the network to retrieve information for the IVR system to playback via said telephone interface module,

wherein said network interface module presents a configurable menu to the caller via the network for the caller to specify the caller's personalized dialogue menu, and

wherein the network interface module parses text messages into a predetermined format such that the parsed text messages are used to interact with the caller through said telephone interface module.

27. (Original) The system according to claim 18, wherein said network includes at least one of the Internet, an intranet, and a personal area network.

28. (Currently amended) A signal-bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method for personalizing an interactive voice response (IVR) system to reduce a number of key sequences to reach a desired source of information, said method comprising:

storing a caller profile;

accessing said IVR system via a telephone; and

retrieving the caller profile to construct a personalized IVR dialogue menu by performing a tree-based collapsing, and play out the personalized IVR dialogue menu via said telephone, said personalized IVR dialogue menu comprising:

a plurality of shortcut paths; and

an option for changing said plurality of shortcut paths in said personalized IVR

Serial No. 09/421,363

8

Docket No. YOR919990349US1

dialogue menu,

wherein said personalized IVR dialogue menu is at least one of based on a caller access pattern and configurable by said caller.

29. (Previously presented) The method of claim 1, wherein said personalized menu is constructed based on said caller's defined parameter other than a most recent selection made by said caller.

30. (Previously presented) The method of claim 1, wherein said personalized menu is constructed automatically by said system based on available user profile information not limited to said caller's most recently accessed menu selection.

31. (Previously presented) The system of claim 16, further comprising:
means for constructing said personalized menu based on said caller's defined parameter other than a most recent selection made by said caller.

32. (Previously presented) The system of claim 16, wherein said personalized menu is constructed automatically by said system based on available caller profile information not limited to said caller's most recently accessed menu selection.

33. (Previously presented) The method of claim 1, wherein said option for changing said plurality of shortcuts in said personalized IVR dialogue menu, comprises an option for changing said personalized menu to include a selected shortcut.

34. (Previously presented) The method of claim 1, wherein said option for changing said plurality of shortcut paths in said personalized IVR dialogue menu comprises an option for selecting a sequence of direct dialogue paths to be included in said personalized IVR dialogue menu.

Serial No. 09/421,363

9

Docket No. YOR919990349US1

35. (Previously presented) The method of claim 1, wherein said option for changing said plurality of shortcut paths in said personalized IVR dialogue menu comprises an option for changing said personalized IVR dialogue menu before navigating said personalized IVR dialogue menu during a current call.

36. (Previously presented) The method of claim 1, wherein said plurality of shortcut paths comprises system-analyzed shortcuts which are based on a caller access pattern, and user-defined shortcuts which are specified by said caller.

37. (Previously presented) The method of claim 36, wherein said personalized IVR dialogue menu further comprises an option for selecting a default main menu.

38. (Previously presented) The method of claim 1, further comprising:

inserting an advertisement into said caller's personalized IVR dialogue menu, based on the caller's IVR past accessing patterns, during said caller's navigation of said personalized IVR dialogue menu,

wherein said option for changing said plurality of shortcuts in said personalized IVR dialogue menu comprises an option for changing said personalized IVR dialogue menu to include a selected shortcut, and

wherein a specification of said personalized IVR dialogue menu is performed over a network comprising at least one of a World-Wide-Web (WWW), an intranet, and a personal area network (PAN).

39. (Previously presented) The method of claim 3, wherein said specifying said content of said personalized IVR dialogue menu comprises at least one of adding a shortcut path to and deleting a shortcut path from said personalized IVR dialogue menu.

40. (Previously presented) The method of claim 1, wherein said option for changing said plurality of shortcut paths in said personalized IVR dialogue menu comprises an option for at

Serial No. 09/421,363

10

Docket No. YOR919990349US1

least one of adding a shortcut path to and deleting a shortcut path from said personalized IVR dialogue menu.

41. (Previously presented) The method of claim 1, wherein upon electing said option for changing said plurality of shortcut paths, said system provides a dialogue for allowing said caller to use said telephone to input user-defined shortcuts via key sequences based on key-to-shortcut mapping.

42. (Previously presented) The method of claim 1, wherein said receiving said caller profile comprises playing out said personalized IVR dialogue menu upon said system receiving a telephone call from said user.